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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,157	01/31/2002	Norio Kubo	32739M070	6520

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/059,157

Applicant(s)

KUBO ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION***Response to Amendment***

Applicants' amendments have overcome the previously applied rejection under § 112, second paragraph, applied in the last Office action for claims 1 and 2. Based on this amendment the artisan would understand that the claimed replenishment toner contains a volume range of toner particles with diameters of 5.04 μm or smaller based on the initial loading of this sized particles. For example, in claim 1 the initial load of toner contains 0.5 to 1.5 % by volume of particles with diameters of 5.04 μm or smaller. The replenishment toner contains 1.5 to 3.5 times by volume as many particles in this size range. This equates to a range in volume % of particles with diameters of 5.04 μm or smaller in the replenishment toner of 0.75 % (0.5 % x 1.5) to 5.25 % (1.5 % x 3.5). All volume % of toner particles in the noted size range would be within these extremes for claim 1. The permissible ranges of the other claims' toner particles in the noted size range would be calculated in the same manner.

Response to Remarks

In the traversal of the rejections as previously set forth applicants stress that certain prior art references applied are directed to a one-component developer rather than a two-component developer. Applicants state, "This is different from the claimed invention and it is questionable whether the findings detailed in the cited prior art are pertinent when examining the patentability of the claimed invention, which utilizes a two-component developer." The Examiner must disagree with this characterization of the claimed invention. The claims as presented specify a "replenishment toner" for use in an apparatus that detects a toner concentration in a two-

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component developer by use of a certain means. The claims are directed to "a replenishment toner" not a two-component developer, not an apparatus, and not a process that utilizes a two-component developer. As seen in the examples, the replenishment toner is present without a carrier particle when loaded into the hopper unit of the copier (p. 15, ¶ [0041]). The claims appear to be directed to the toner in this condition.

There is no requirement in the claims for the presence of an additional component (e.g., carrier) with the replenishment toner (i.e., a single component). There is also no requirement in the claims that the composition of the replenishment toner be the same or different from the composition of the initially loaded initial toner. Both are permitted. The claims only define the replenishment toner with respect to the volume and size characteristics of the initial toner of the two-component developer. Definition of the initial toner's volume and size characteristics has been provided in the recent amendment.

The recitation of the two-component developer in the preamble of the replenishment toner claims is directed to an intended use embodiment of the replenishment toner and provides the basis for the scope of the replenishment toner's volume and size characteristics. There is no two-component developer present in the claimed invention.

The replenishment toner is for use in an apparatus that detects the toner concentration of a two-component developer by a certain means. There is no requirement in the claims that the replenishment toner actually be present in the apparatus. Also see MPEP 2114 & 2115 concerning the presence of a material worked upon by an apparatus (e.g., toner, developer, etc.) in apparatus claims. There is also no process claim where the replenishment toner actually is used in the manner asserted in the response.

The art is applicable to the instant claims for the reasons that follow given the claim interpretation discussed here.

Claim Rejections - 35 USC § 112

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 remains indefinite because the claims do not specify the median size of the initial toner. This claim specifies the median size of the replenishment toner based on the size of the initial toner; that is, the median sizes are the same. However, there is no definition of the initial toner's median size, even after the recent amendment. Lacking this information, the artisan would not know which median sizes are present in the scope of the claim's replenishment toner. The claim is being interpreted as including all median sizes for the replenishment toner.

Claim Rejections - 35 USC § 102

Claims 1-6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mikuriya *et al.* in US Patent 5,849,453.

The instant claims have been amended in the manner noted above. The Examiner agrees that Example 1 of this reference is no longer applicable to the claimed invention. However, Example 2 is particularly pertinent to the invention. The volume amount of toner having a size of 5.04 μm or smaller is 2.6 % noting Table 4. This toner also has a volume average particle size of between 8.00 and 10.08 μm noting that 50 % cumulative distribution of toner is obtained in this size range (again see Table 4).

The reference's 2.6 % of particles having a size of range of 5.04 μm or smaller meets the requirements of the instant claims because this volume falls within the range of the instant claims. Specifically for claim 1, the replenishment toner has 0.75 % (0.5 % x 1.5) to 5.25 % (1.5

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% x 3.5) in the noted size range. The value of 2.6 % falls within the range of 0.75 % to 5.25 %. Similar analysis shows the reference to be applicable to the other rejected claims (e.g., claim 4 permits a range of 1.0 % to 3.75 %; claim 6 permits a range of 0.9 % to 3.5 %). Each rejected claim is anticipated by this portion of the reference.

Applicants' remarks are noted, but as discussed above the claims are directed only to the replenishment toner: not a two-component developer, process, or apparatus. The claims do not specify any particular composition for the replenishment toner. It can be completely different from the toner used in the two-component developer, which is also compositionally undefined.

The reference remains applicable to claim 3 because any disclosed toner in the reference could be considered to have the same size as an initial toner because the claims do not specify the characteristics of the initial toner.

Mikuriya is applicable to the instant claims because it meets each of the claimed limitations. The rejection is proper for the reasons given herein for the claims as amended and newly presented.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Sano *et al.* in US Patent 5,863,694.

Sano exemplifies toners in Table 1 (col. 9) having size characteristics that appear to inherently fall within the scope of the instant claims. Example 1 has a volume mean size of 9.1 μm with 2.0 volume % of particles having a size of 5 μm or smaller. Example 2 has a volume mean size of 8.2 μm with 2.3 volume % of particles having a size of 5 μm or smaller. Example 7 and Comparative Example 1 appear relevant to each of the above rejected claims. Comparative Examples 6 and 8 also appear relevant to claims 1-3; Comparative Example 8 is also pertinent to claim 5. This toner is used as part of a two-component developer (Examples).

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Although the reference does not specify the volume % of particles having sizes of 5.04 μm or smaller, it does specify the volume % of particles having size of 5 μm or smaller. Given the small difference in upper limit of toner particle size range (5 μm versus 5.04 μm) and the similar volume average particle diameters, which are substantially larger than the values of 5 μm and 5.04 μm (the upper limit of the reference's and invention's ranges – one would expect few particles in the range of 5.00 to 5.04 μm), there is sufficient reason to believe that the volume % of particles having sizes of 5.04 μm or smaller would be substantially the same as volume % of the references particles having sizes of 5 μm or smaller.

The above noted values fall within the scope of the instant claims, such as claim 1 having 0.75 % to 5.25 % of particles by volume with a size of 5.04 μm or smaller and claim 6 having 0.9 % to 3.5 % of particles by volume with a size of 5.04 μm or smaller.

The remarks above concerning the interpretation of the instant claims are pertinent to this rejection.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 1-8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of copending Application No. 10/059130. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application's toner claims specify a volume % of particles with sizes at 5.04 μm or smaller that either completely falls within the scope of the instant claims (e.g., instant claims 1, 4, and 6) or discloses specific points (e.g., 2.5 % by volume) that fall within the scope of the instant claims. With respect to instant claim 2, copending application claim 8 discloses a volume-average particle diameter of from 7 to 13 μm that would suggest median sizes of 8 μm as in instant claim 2.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The previously applied rejection under § 103 is withdrawn because it appears superfluous to the rejections under § 102 applied in this Office action. The toner claims are seen as defining an invention that is identically disclosed by the applied art, and the § 103 rejection is seen as unnecessary.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone numbers for the

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organization where this application or proceeding is assigned are 703 872-9310 for regular communications and 703 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr
May 22, 2003



CHRISTOPHER RODEE
PRIMARY EXAMINER